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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,986	12/19/2000	Ju Hyun Lee	MRE-002	2706

34610 7590 01/09/2007
FLESHNER & KIM, LLP
P.O. BOX 221200
CHANTILLY, VA 20153

EXAMINER

SELBY, GEVELL V

ART UNIT	PAPER NUMBER
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2622

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/738,986	LEE, JU HYUN	
	Examiner	Art Unit	
	Gevell Selby	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 is/are allowed.
- 6) ☒ Claim(s) 5 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/20/06 have been fully considered but they are not persuasive. The applicant submits the prior art does not disclose the following limitation of the claimed invention:

a fingerprint recognition sensor installed at an upper portion of the transparent electrode thin film, as stated in claim 5. The examiner respectfully disagrees.

Examiner's Reply:

Re claim 5) The Burrows reference discloses a fingerprint recognition system with a fingerprint recognition sensor (contact surface 101) that generates an optical image of the fingerprint and the recognition sensor is installed at an upper portion of the transparent electrode film (elements 104 and 105 in combination). Therefore the combination of the Burrows and Li references disclose all the limitations of the claimed invention and the dependent claim is not allowable because of its dependency.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 claims a fingerprint recognition sensor comprising a fingerprint recognition sensor. By claiming the invention as a feature of the invention, the claim is vague and indefinite.

For examination purposes, the Examiner will view the invention as "a fingerprint recognition system" in the preamble of the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burrows et al., US 6,091,838, in view of Li et al., US 6,219,793.**

In regard to claim 5, Burrows et al., US 6,091,838, discloses a fingerprint recognition system comprising:

- an image sensor (see figure 1, element 150 and column 6, lines 28-33);
- a transparent electrode thin film (see figure 1, element 104 and 105 in combination) directly deposited as a thin film at an upper portion of the image sensor (see column 4, line 62 to column 5, line 1); and
- a fingerprint recognition sensor is installed at an upper portion of the transparent electrode thin film (see figure 1, element 101 and column 4, lines 49-61).

The Burrows reference does not disclose a CMOS image sensor.

Li et al., US 6,219,793, discloses a fingerprint recognition system wherein the imager is a CCD array or a CMOS photodiode/photogate array to generate an electronic

Art Unit: 2622

image of the user's fingerprint (see column 12, lines 43-46). It teaches that if a CMOS sensor is used, it may be provided on a single integrated circuit together with processing logic such as a CPU (see column 12, lines 46-48)

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Burrows et al., US 6,091,838, in view of Li et al., US 6,219,793, to have a CMOS image sensor, in order to capture an electronic image of high quality to be processed for recognition by a CPU on the same substrate, which makes the system more compact while provide high image quality.

In regard to claim 6, Burrows et al., US 6,091,838, in view of Li et al., US 6,219,793, discloses the fingerprint recognition system according to claim 5. Neither reference discloses wherein the CMOS image sensor includes a ground frame having at least one pin.

The Official Notice taken in the previous office action stating that is well known in the art for a CMOS image sensor to include a ground frame having at least one pin, in order to secure the image sensor in its place and connect it with the rest of the imaging system so that the system can operate properly and the operate is not interrupted when the system is moved is taken as prior art. Since the applicant has not timely traversed the old and well known statement, the above is now considered admitted prior art. See MPEP 2144.03 (c).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Burrows et al., US 6,091,838, in view of Li et al., US 6,219,793 to have the CMOS image sensor include a ground frame having at

Art Unit: 2622

least one pin, in order to secure the image sensor in its place and connect it with the rest of the imaging system so that the system can operate properly and the operate is not interrupted when the system is moved.

Allowable Subject Matter

6. Claims 1-3 are allowed.
7. The following is a statement of reasons for the indication of allowable subject matter:

In regard to claims 1-3, the prior art does not disclose a fingerprint recognition sensor or a method of with the combination of limitations specified in the claimed invention, specifically the limitations of:

wherein a light absorbent layer is coated on the surface of the luminescent layer and diffused to thereby cover the surface of the fluorescent particles existing in the luminescent layer, as stated in claims 1 and 3.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

Art Unit: 2622


will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 571-272-7369. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

gvs



VIVEK SRIVASTAVA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600